

UNITED NATIONS DEVELOPMENT PROGRAMME



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APPROVAL OF UNDP ASSISTANCE TO A PROJECT OF CHINA

IPF: (1992-96) \$176 600 000
(CPR/91/130)- Seed Breeding Programme

Date of approval by the AC: ^{1/}	10 June 1992
Expected duration:	Five years
Proposed executing agency:	Government
Government implementing agency:	Chinese Academy of Agricultural Sciences
Proposed UNDP contribution:	\$5 250 200
Total UNDP budget:	\$5 250 200
	Source of funds: IPF

Project background

The need to maintain self-sufficiency in food production is considered fundamental for the continued development of China. The Government of China has established a target of 400kg per capita grain availability by year 2000 (i.e. 500 million tons). The total grain production in 1989 and 1990 was 408 and 435 million tons, respectively. China must feed 22 percent of the world's population on less than eight percent of the world's arable land. With a population of 1.15 billion people, and an annual population growth rate of about 1.3 percent (or approximately 15 million people annually), there is clearly a need to increase production of food crops if this target is to be achieved. Given China's constraints on arable land, this target can only be achieved by an increase in yields, better use of under-utilized land, and an increase in cropping intensity. Among the major means stated for achieving these goals are the breeding and development of higher-yielding and more resistant varieties.

China, however, faces several limitations in its efforts to develop higher yielding and more resistant food crop varieties. Lack of breeding material and adequate laboratory and experimental facilities, severe constraints in human resources due to inadequate levels of training, and lack of management personnel to effectively organize crop breeding activities, all diminish the effectiveness of agricultural research in the country. At the institutional level, a highly compartmentalized research system and deficient communication among involved institutions severely affects coordination of research activities, fostering duplication of efforts and resulting in a slower rate of technology transfer and the under-utilization of China's research resources. To address the above constraints and improve water control, irrigation and drainage, invest in agricultural inputs, soil and water management and agricultural machinery, and provide leadership in each field, especially in research and development of new varieties in food crops, the Government requested UNDP

^{1/} This Fact Sheet reflects the status of the project/revision at the time it was approved by the Action Committee; modifications to the project/revision may have occurred subsequently.

assistance under the present approval.

Description of project

The immediate objectives of the programme are to: (a) establish a national food crop breeding capacity that will develop higher yielding varieties and hybrids with improved characteristics, so as to allow China to achieve its intended goals in food production; (b) concentrate on five major crops, namely, wheat, sorghum, maize, foxtail millet and potato; (c) operate through ten established research institutions which are the leading Chinese institutions in their fields; (d) introduce and develop new technology in food crop breeding, breeder seed production and management systems; (e) provide support to the National Programme Manager to carryout his functions in coordination (improve institutional linkages, establish improved communications, etc.) and to address issues common to the other five components such as dissemination of results, creation and support to cross-cutting task forces, studies such as long-term self-sustaining financial arrangements for agricultural research and effects of pricing policies, development of long-term monitoring and evaluation mechanisms; (f) coordinate overall management by a Programme Committee consisting of representatives of CICETE, UNDP, CAAS, Ministry of Agriculture and FAO with the NPD as ex-officio member; (g) build on existing projects to accelerate their effectiveness through a focus on human resources and training of technical and managerial personnel; (h) improve facilities for breeding research at the selected institutions which will, in turn, act as centers of advanced technical know-how to be disseminated to other institutions, as information exchange centers, and as resource institutes in research, training, demonstration, dissemination, management and development; (i) encourage mutual interactions among the recipient institutes, leading to the faster dissemination and absorption of the new techniques and methodologies transferred through the technical assistance provided; and (j) help establish linkages and scientific interaction among national research institutes in order to achieve a better integration of the various, currently unconnected, provincial seed breeding programmes for the main grains and tuber.

Inputs

UNDP will provide approximately 110 man-months of foreign experts in areas common to the various crops as well as in crop-specific subjects; approximately 488 man-months of training in the form of study tours, fellowships and group training; equipment including a mixture of field plot, laboratory, breeder seed storage and computer equipment.

Financial data

	\$
Personnel	849 700
Training	2 404 000
Equipment	1 835 500
Miscellaneous	161 000
Total	<u>5 250 200</u>

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